



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/627,800	07/28/2000	Fan Zhou	FORE-62	3580

7590

05/17/2004

Ansel M Schwartz
One Sterling Plaza
201 N Craig Street Suite 304
Pittsburgh, PA 15213

EXAMINER

PEIKARI, BEHZAD

ART UNIT	PAPER NUMBER
----------	--------------

2186

DATE MAILED: 05/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/627,800

Applicant(s)

ZHOU ET AL.

Examiner

B. James Peikari

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-10 and 12-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,10 and 12 is/are rejected.
- 7) ☒ Claim(s) 5-9,13 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other:

DETAILED ACTION

Request for Information

1. The previous request for information under 37 CFR 1.105 is withdrawn in response to applicant's comments attached to the amendment filed on January 5, 2004.

Drawings

2. The previous objection to the drawings is withdrawn in response to the Formal Drawings submitted with the amendment filed on January 5, 2004.

Specification

3. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2186

5. Claims 1, 4, 10 and 12 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Simms et al., U.S. 6,161,155.

Simms et al. clearly teach the invention in Figure 1, wherein a memory (*Storage Register 33*) for holding packets holds at least one packet (*Data Packet A and Data Packet B*) and only one boundary indicator (*EOB*).

Simms et al. clearly teach the use of a memory controller (*note the various control devices within tape drive memory controller 24*).

Simms et al. clearly teach storing the boundary indicator in the memory after a predetermined number of bits have been stored in the memory (*note column 4, which states, "data packet B was received over the D8-D15 data lines. After receiving these data packets, data packet B was determined ... to be an EOB data packet ... because data packet B was determined to be an EOB data packet the bit is set as shown"*).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2186

7. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simms et al., U.S. 6,161,155, in view of either Lynch et al., U.S. 6,078,587 or Boddu et al., U.S. 5,974,511.

Simms et al. teach a Buffer Memory 8 for buffering data from Tape 20, but fail to explicitly mention the use of Buffer Memory 8 as a cache. However, each of Boddu et al. and Lynch et al. teach the claimed use of caches to hold packets in systems that were compatible with Simms et al.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the Simms et al. Buffer Memory 8 as a cache memory in the manner of the Boddu et al. or the Lynch et al. systems, since (1) Buffer Memory 8 was already a smaller, faster memory configured to store a subset of the data stored in the tape drive memory, and (2) the benefits of caching for efficient data retrieval were well known at the time of the invention.

Allowable Subject Matter

8. Claims 5-9 and 13-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Amendment

9. As to the amendment filed on January 5, 2004, and the associated remarks, these have been carefully considered, but are not deemed to place the application in condition for allowance.

All of applicant's arguments hinge on the single assertion that Simms et al. does not teach counting bits to determine a predetermined number of bits, after which to store a boundary indicator. However, this assertion is incorrect for two reasons.

(a) First, and most importantly, the claims do not recite any method or apparatus for counting bits.

(b) Second, the claims only recite "after a predetermined number of bits have been stored in the memory". As applicant has admitted, Simms et al. count a predetermined number of *packets* in order to determine when to store a boundary indicator. However, since each packet is of a fixed length (i.e., eight bits in the Simms et al. system), predetermining the number of packets predetermines the number of bits. For example, if the Simms et al. system inserts an EOB indicator after every two packets, then the predetermined number of bits for an EOB is sixteen.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

Art Unit: 2186

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Peikari whose telephone number is (703) 305-3824. The examiner is generally available between 8:00 am and 9:30 pm, EST, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim, can be reached at (703) 305-3821.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 746-7239 (Official communications)

or:

Art Unit: 2186

(703) 746-7240 (for Informal or Draft communications)

or:

(703) 746-7238 (for After-Final communications)

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).



B. James Peikari
Primary Examiner
Art Unit 2186

February 22, 2004